



Indiana Department of Environmental Management 1999 Annual Compliance Report for Indiana Public Water Supply Systems

IDEM Drinking Water Branch

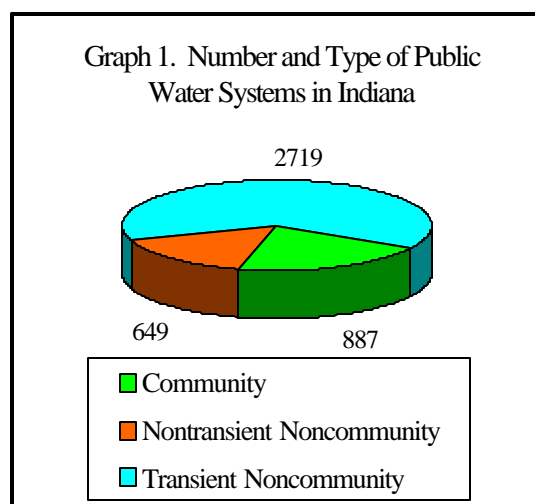
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Introduction

The 1996 Amendments to the Safe Drinking Water Act require each state to prepare an annual report of violations of the national primary drinking water regulations for public water supplies. The annual reports are intended to provide a summary of violations of maximum contaminant levels (MCL's), treatment techniques, variances and exemptions¹, and monitoring and reporting violations (M&R). This report includes information for the time period January 1, 1999 through December 31, 1999.

Public Water Supply Information

There are approximately 4,255 active public water supplies in Indiana. Graph 1 shows the distribution of public water systems by the system type. Drinking water in Indiana comes from ground water sources via wells or surface water systems such as lakes and rivers. Some public water systems purchase water from other public water supplies and distribute the water to their customers. Ninety-six percent (96%) of all public water systems are served by ground water systems. However, only fifty-three percent (53%) of the total population is served by systems utilizing ground water.



Drinking Water Monitoring Requirements

¹ IDEM did not issue any variances or exemptions in 1999, therefore there are no violations for variances and exemptions to address in this summary report.

The Safe Drinking Water Act and the Indiana Public Water Supply Supervision Program mandate the monitoring and reporting of various bacteriological and chemical contaminants that may be found in drinking water. The contaminants are categorized as total coliform, nitrate (NO₃), inorganic chemicals (IOCs), volatile organic compounds (VOCs), synthetic organic compounds (SOCs), radionuclides (Rads), lead and copper (Pb/Cu), and total trihalomethanes (TTHMs). The levels of these contaminants in drinking water are compared to maximum contaminant levels (MCLs) which are set by the Environmental Protection Agency (EPA) and the State, to ensure that water is safe for human consumption. See Table 2 on the back page for a list of MCLs and action levels for all of the regulated contaminants.

Surface water systems and systems that have exceeded an action level for lead or copper are required to properly treat their water to control the levels of such contaminants as bacteria, viruses, parasitic microorganisms, lead, or copper. Treatment technique (TT) violations are assigned to systems that do not meet this requirement.

Violation Summary

Table 1 provides a summary of the number of MCL, M&R, and TT violations for all of the regulated drinking water contaminants for the 1999 calendar year (January 1, 1999-December 31, 1999). The table also provides a summary of the number of systems in violation for each contaminant group. Every effort has been made to tabulate the total number of systems in violation without double counting a system if it has more than one violation across contaminant groups.

An evaluation of the data from the 1996, 1997 and 1998 Annual Compliance Reports, in conjunction with the data for this report, shows a consistency in compliance rates for MCL, M&R, and TT violations. Approximately forty percent (40%) of the total number of active water systems have monitoring and reporting violations for at least one contaminant. The majority of these systems (approximately 76%) are transient public water supplies. The percentage

Table 1. 1999 Violations Summary for Indiana Public Water Supplies

		MCL		Treatment Technique		Monitoring & Reporting	
		Violations	Systems in Violation	Violations	Systems in Violation	Violations	Systems in Violation
Pb/Cu	CWS			12	12	72	32
	NTNC			33	30	73	52
SWTR	CWS			11	5	0	0
	NTNC			0	0	0	0
	TNC			4	2	0	0
VOC	CWS	0	0			72	38
	NTNC	3	3			75	50
IOC	CWS	4	1			29	29
	NTNC	0	0			21	21
SOC	CWS	0	0			74	44
	NTNC	1	1			43	29
NO3	CWS	14	6			25	25
	NTNC	0	0			14	14
	TNC	4	1			457	457
TCR	CWS	70	55			258	137
	NTNC	50	43			156	128
	TNC	190	172			2311	1224
TTHM	CWS	0	0			0	0
	NTNC	0	0			0	0
Rads	CWS	8	2			0	0
Totals	CWS	96	61	23	17	530	214
	NTNC	54	46	33	30	382	198
	TNC	194	173	4	2	2768	1275

Total Number of Systems in Violation	CWS	257
	NTNC	252
	TNC	1397
	Total	1906

LEGEND

MCL=Maximum Contaminant Level Violation

Pb/Cu=Lead and Copper

IOC=Inorganic Chemicals

TCR=Total Coliform Rule

CWS=Community Water System

SWTR=Surface Water Treatment Rule

SOC=Synthetic Organic Compounds

TTHM=Total Trihalomethanes

NTNC=Nontransient Noncommunity Water System

VOC=Volatile Organic Compounds

NO3=Nitrate

Rads=Radionuclides

TNC=Transient Noncommunity Water System

of systems with maximum contaminant level violations has remained consistent at approximately six percent (6%) over the past four years.²

Consumer Confidence Reports

In 1999, for the first time, all community public water systems were required to develop and distribute to their customers a brief annual water quality report, called a consumer confidence report (CCR). The purpose of the report is to inform and educate customers on the status and quality of their public water supply. The report contains information on the sources of drinking water, the levels of any detected contaminants, and educational information regarding drinking water. The IDEM Drinking Water Branch, in association with the Indiana Water and Wastewater Association, conducted workshops around the State to assist public water supply owners and operators in developing their first consumer confidence reports. As a result, ninety-five percent (95%) of the public water supplies that were required to prepare these reports complied with this new requirement.

Compliance Assistance Efforts

The Drinking Water Branch currently assists public water supply owners and operators to promote compliance with the drinking water regulations. Assistance is provided through site visits, correspondence, telephone contact, and educational presentations and materials. The following is a summary of the number of site visits that were conducted in 1999 by the Drinking Water Branch staff:

Sanitary Surveys	591
Vulnerability Assessments	8
Well Site Surveys	57
Technical Assistance Visits	467
MCL Follow-Up Visits	198

The focus of the compliance assistance efforts has been primarily directed to community and nontransient noncommunity public water supplies. In 2000, The State will be utilizing additional funds available from the federal government to provide technical assistance for small public water systems. Technical contractors will be used to provide additional education, guidance and on-site assistance to small systems to improve compliance and promote a better understanding of the drinking water regulations.

For More Information

If you have any questions concerning this report or would like the lists of public water supplies that have had violations in 1999, please contact the Drinking Water Branch at (317) 308-3280. Additional copies of this report are available on the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch web-site at <http://www.state.in.us/idem/owm/dwb/index.html> or by contacting the Drinking Water Branch at (317) 308-3280.

Additional information regarding the quality of your drinking water may be obtained by contacting your local public water supplier. Please contact your local public water supply for a copy of the latest consumer confidence report (CCR) for your public water system.

For more information regarding all aspects of the environment in Indiana, IDEM publishes an annual State of the Environment Report. Copies of the report are available via the internet at <http://www.state.in.us/idem/soe/index.html>, or by calling (800) 451-6027 ext. 3-1044. Also, for general information regarding drinking water you may contact the EPA Safe Drinking Water Hotline by calling (800) 426-4791.

² There was a significant increase in the number of Pb/Cu TT and M/R violations, compared to previous years, due to a change in EPA's reporting guidance for the annual compliance report. However, a comparison of the underlying data indicates that the number of TT and M/R violations for the Pb/Cu rule has remained consistent for the past four years.

TABLE 2
REGULATED CHEMICAL DRINKING WATER CONTAMINANTS
MAXIMUM CONTAMINANT LEVELS

Contaminant	MCL	Contaminant	MCL	Contaminant	MCL
Inorganic Chemicals (IOCs)	mg/l	Volatile Organic Compounds (VOCs)	ug/l	Synthetic Organic Compounds (SOCs)	ug/l
Antimony	0.006	1,1-Dichloroethylene	7	2,4-D	70
Arsenic	0.05	1,1,1-Trichloroethane	200	2,4,5-TP (Silvex)	50
Barium	2	1,1,2-Trichloroethane	5	Alachlor	2
Beryllium	0.004	1,2-Dichloroethane	5	Atrazine	3
Cadmium	0.005	1,2-Dichloropropane	5	Benzo(a)pyrene	0.2
Chromium	0.1	1,2,4-Trichlorobenzene	70	Carbofuran	40
Cyanide (free)	0.2	Benzene	5	Chlordane	2
Fluoride (Adjusted) *	2	Carbon Tetrachloride	5	Dalapon	200
Fluoride (Natural) *	4	Cis-1,2-Dichloroethylene	70	Di(2-ethylhexyl)adipate	400
Mercury	0.002	Dichloromethane	5	Di(2-ethylhexyl)phthalate	6
Nickel	---	Ethylbenzene	700	Dibromochloropropane (DBCP)	0.2
Selenium	0.05	Monochlorobenzene	100	Dinoseb	7
Thallium	0.002	o-Dichlorobenzene	600	Dioxin (2,3,7,8-TCDD)	3X10-5
		p-Dichlorobenzene	75	Diquat	20
Sodium *	No MCL	Styrene	100	Endothall	100
		Tetrachloroethylene	5	Endrin	2
Asbestos		Toluene	1000	Ethylene Dibromide (EDB)	0.05
Asbestos	7 MFL**	Trans-1,2-Dichloroethylene	100	Glyphosate	700
		Trichloroethylene	5	Heptachlor	0.4
Nitrate		Vinyl Chloride	2	Heptachlor epoxide	0.2
Nitrate	10	Xylenes (total)	10,000	Hexachlorobenzene	1
Nitrite	1			Hexachlorocyclopentadiene	50
Total Nitrate & Nitrite	10			Lindane	0.2
		Total Trihalomethanes **** (for systems >10,000)	100	Methoxychlor	40
Lead & Copper				Oxamyl (Vydate)	200
Lead Action Level	0.015			PCBs	0.5
Copper Action Level	1.3			Pentachlorophenol	1
				Picloram	500
Radionuclides *	pCi/l			Simazine	4
Gross Alpha	15			Toxaphene	3
Gross Alpha Action Level	5				
Radium-226 Action Level	3				
Radium-226 & Radium-228 (combined)	5				
Manmade	***				

* Community Water Systems Only

** MFL=million fibers/liter > 10 micron

*** The average annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirem per year.

**** The sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform), and trichloromethane (chloroform).

